CLAIMS

- Hydraulic receiver (1) for clutch control provided with a declutching device (102), notably for a motor vehicle, having a fixed part (4, 5) comprising an internal guide tube (5) with an axial axis of symmetry (X-X') and comprising a concentric outer body (4), roughly annular in shape, which has at its centre an external tubular front end portion (8) surrounding the guide tube (5), defining between them a blind annular cavity (7) able to be fed with fluid and inside which there is mounted, so as to be axially movable, a piston (6) which carries, at its front axial end, a drive element (9) able to act on the declutching device (102) of the clutch, of the type in which the internal guide tube (5) projects axially towards the front with respect to the external tubular portion (8) and serves at a guide for the piston (6) which surrounds the guide tube (5) whilst being surrounded by the tubular portion (8), and of the type in which the piston (6) carries at its front end a carrying and supporting metallic piece (122) which has at least one second axially oriented annular portion (128) directed towards the rear in the direction of the external tubular portion (8) and extended, at its front end, radially outwards by a transverse annular supporting portion (129) for a component (91) of the drive element (9), characterised in that means are provided, by cooperation of shapes, for anchoring the carrying and supporting piece (122) on the front end of the piston (6).
- 2. Receiver according to Claim 1, characterised in that the carrying and supporting piece has a first axially oriented annular portion (125) which is offset radially inwards and whose rear axial end is connected to the rear axial end of the second portion (128) by a portion rounded substantially in a semicircle (127), and the said anchoring means are formed at least partly in the said portion (125) in order to obtain even stronger anchoring.

- 3. Receiver according to any one of the preceding claims, characterised in that the carrying and supporting piece (122) has at least one hole (124) through which a portion of the material of the piston (6) extends.
- 4. Hydraulic receiver according to the previous claim taken in combination with Claim 2, characterised in that holes (124) are formed in the said first axially oriented annular portion (125).
- 5. Hydraulic receiver according to one of Claims 3 or 4 taken in combination with Claim 2, characterised in that holes are formed in the said rounded connecting portion (127).
- 6. Receiver according to any one of Claims 3 to 5, characterised in that the carrying and supporting piece (122) has holes (124) for its firm anchoring in the piston (6) by the superimposed moulding technique.
- 7. Hydraulic receiver according to any one of Claims 2 to 5, characterised in that the carrying and supporting piece (122) can be anchored by snapping into the piston (6).
- 8. Hydraulic receiver according to the previous claim, characterised in that the piston (6) has a change in diameter (302) at the outer periphery of its front end (304) with the formation of a transverse shoulder (61) between the changes in diameter, and in that the rounded portion (227) bears on the shoulder (61) and the first portion (125) has inclined lugs (224) each engaged radially towards the inside in a groove (62) formed in the periphery of the reduced-diameter portion of the front end of the piston (6).
- 9. Hydraulic receiver according to Claim 7, characterised in that the piston (6) has a change in diameter (302) at the outer periphery of its front end (304) with the formation of a transverse shoulder (61) between the changes in diameter, in

that the rounded portion (327) bears on the shoulder (61) and the first portion (125) has holes (324), each of which receives an anchoring toe (300) which extends radially outwards from the periphery of the reduced-diameter portion of the front end of the piston (6).

- 10. Hydraulic receiver according to any one of Claims 2 to 9, characterised in that the front axial end of the first annular portion (125) forms a groove (126) for receiving an axially acting self-centring resilient washer (10) which engages at its internal periphery in the groove (126) in the first portion (125) and which bears at its outer periphery (91) on the said one component of the drive element (9) in order to force it in the direction of the transverse annular support portion (129).
- 11. Hydraulic receiver according to any one of Claims 2 to 10, characterised in that the first annular portion (125) extends axially towards the front beyond the front axial end of the piston (6) by a length such that this makes it possible to house a sealing scraper joint (150), at the front of the piston (6), which has a lip in contact with the outer periphery of the internal guide tube (5).
- 12. Hydraulic receiver according to the previous claim, characterised in that the scraper joint (150) bears on the front face of the piston (6) and is centred by the internal periphery of the first portion (125).
- 13. Hydraulic receiver according to the previous claim taken in combination with Claim 10, characterised in that the groove (126) which receives the washer (10) is produced by pushing back material leading to the formation of an internal lip (151) for axially mobilising the scraper joint (150) between the lip (151) and the front face of the piston (6).
- 14. Hydraulic receiver according to any one of Claims 2 to 13, characterised in that the carrying and supporting piece (122)

has a third axial annular portion (134) which is offset radially outwards with respect to the second portion (128) so that the outer tubular front end portion (8) can enter radially between the second and third portions (128, 134).

- 15. Hydraulic receiver according to the previous claim, characterised in that the second and third annular portions (128, 134) are connected together by the said transverse annular support portion (129).
- 16. Hydraulic receiver according to one of Claims 14 or 15, characterised in that the third axially oriented annular portion (134) ending in a transverse shoulder (135) extended by an inclined end portion (136) for the centring and support of the front axial end of a preloading spring (11).
- 17. Hydraulic receiver according to the previous claim, characterised in that the front face of the transverse shoulder (135) and of the inclined portion (136) serves as a support for the front end of a sealing bellows (21).
- 18. Hydraulic receiver according to any one of the preceding claims, characterised in that the drive element (9) is a ball bearing.
- 19. Hydraulic receiver according to the previous claim, characterised in that the ball bearing (9) has an inner race (91) which has at its internal periphery a transversally oriented rim directed towards the axial axis of symmetry (X-X') of the internal guide tube (5) and which constitutes the said component of the drive element.
- 20. Hydraulic receiver according to one of Claims 18 or 19 taken in combination of Claim 17, characterised in that the bellows (21) ends at the front in an attachment rim (160) centred on the inside by the external periphery of the third portion (134) and which bears on a face of the shoulder (135),

and in that the rim (160) enters underneath the internal race of the bearing, axially oriented at this point.